



Australian Government

Assessment Requirements for MSL975023 Supervise geotechnical site investigations

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL975023A Supervise geotechnical site investigations

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- supervising and directing at least two (2) geotechnical site investigations
- confirming the scope of the investigation and liaising with site personnel
- conducting desktop studies of existing site information, interpreting maps, site plans and drawings
- identifying/securing resources and briefing support personnel about investigation activities
- designing inspection, sampling and testing programs in accordance with specifications
- identifying and locating site services, sampling and testing sites
- coordinating geotechnical activities on-site to ensure safety of personnel and minimise environmental impacts
- ensuring the collection of reliable site data
- observing, interpreting and reporting site features and geotechnical conditions
- accurately identifying soil, rock and fill materials
- interpreting data in the field, analysing the results and providing reliable advice to clients
- recognising and rectifying obvious errors or unexpected results and troubleshooting common problems
- seeking advice about problems beyond technical competence from appropriate personnel
- using computer software to create/maintain databases and produce detailed investigation reports
- maintaining accurate and complete records
- working safely, and monitoring and promoting site safety.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- purposes and principles of geotechnical site investigations supervised and directed as part of job role
- principles of planning and project management
- identification and classification of materials
- engineering properties of soil and rock materials
- representative sampling and testing methods (both in situ and laboratory) conducted as part of geotechnical site investigations relevant to job role
- uses of engineering materials in civil construction
- civil construction techniques relevant to job role
- common site problems and corrective actions
- relevant hazards, work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgment of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event. The timeframe must allow for adequate assessment of operation under all normal and a range of abnormal conditions.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL915001 Provide information to customers
 - MSL915002 Schedule laboratory work for a small team
 - MSL935001 Monitor the quality of test results and data
- Holistic assessment methods include:
 - review of investigation plans, sampling and testing programs, results, analysis and reports completed by the candidate
 - feedback from clients, supervisors and/or peers about the candidate's ability to supervise and direct geotechnical investigations safely, efficiently and in accordance with regulations and client instructions
 - observation of the candidate coordinating geotechnical sampling, testing and site reinstatement tasks
 - oral or written questioning about the planning, establishment and coordination of geotechnical investigations, including technical details of the collection and analysis of the data, common site problems and promotion of a safe work environment.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - access to geotechnical sites and relevant site documentation
 - workplace procedures, site plans, sampling and test methods/programs and equipment manuals
 - consumables; hand tools; field sampling and test equipment, such as dynamic cone penetration (DCP) testing, standard penetration testing (SPT), shear vane, pocket penetrometer and water level indicator, and sand replacement apparatus
 - levelling equipment (dumpy and automatic levels)
 - still/video camera, communication equipment
 - excavation equipment, such as hand and power augers, powered excavators, generators and jack hammers
 - safety clothing and equipment, including helmets, boots, gloves, earmuffs and glasses.

- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>